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T H E

Practice of Inoculation

IMPARTIALLY CONSIDERED;

I T S

SIGNAL ADVANTAGES

FULLY PROVED;

- A N D

The Popular Objections against it,

C O N F U T E D :

In a LETTER to Sir *Edward Wilmot*, Bart.

By *JOHN ANDREW*, M. D.

TO WHICH ARE ADDED,

The SENTIMENTS of Dr. *HUXHAM*,
and several other very eminent PHYSICIANS,
relative to the said PRACTICE,

As COMMUNICATED to the AUTHOR.

E X E T E R :

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P R E F A C E.

*T*H O' Inoculation was antiently practised on various Kinds of Plants, with the Design of meliorating their Fruit, as is evident from Virgil, Columella, &c. no Instance occurs in which that Word was used to express any Operation on Human Bodies, analogous to the modern Method of communicating the Small-Pox.

It is, indeed, a Matter of great Doubt, whether the Small-Pox was at all known to the Antients; for the late learned Dr. Friend says, the Arabian Physicians, of the 7th Century, are the first Persons that have given any clear Description of it. From that Time, we know it has continued to make dreadful Devastations in many Parts of the World, the most Learned of the Faculty having not been able to discover any Method for destroying, or even alleviating the Malignity of this most destructive Distemper.

Inoculation, like many other great and useful Discoveries, owes its Origin to the Vulgar and Illiterate; and all we know of it is, that during two or three Centuries it has been practised in one or more of the Provinces subject to the Turks, or, as some affirm, in Georgia. But Mr. James Porter, our late Ambassador at Constantinople, assures us, that he was informed by a credible Missionary in Georgia, That he could never find any Traces of it THERE; and tho' many affirm, that it was first introduced into Circassia, with a View of preserving the Beauty of such Ladies as were destined for the Grand Signior's Seraglio, yet no authentic Evidences of this appear.

The most probable Account seems to be that which is given by Pylarini, and adopted by Mr. Porter, viz. That the first who practised Inoculation was a Woman of the Morea, and that her Successor was of Bosnia. The Turks, infatuated by chimerical Notions of Predestination, could never be prevailed on to submit to this Practice; but those of the Greek Church readily embraced*

** This Person sent from Constantinople, in the Beginning of the 18th Century, to the Royal Society, in London, the first authentic Account which we have of Inoculation.*

embraced it, and thereby it came to the Knowledge of an English Lady, † distinguished by her Sense, and Sprightliness of Parts, who accompanied her Husband, the British Ambassador, to Constantinople; from whence, in 1716, she sent the following Account to England, in a Letter to Mrs. S—C—, “ Apropos of Distempers, I am going to tell you a Thing, that would make you wish yourself here. The Small-Pox, so fatal, and so general amongst us, is here entirely harmless, by the Invention of ENGRAFTING, which is the Term they give it. There is a Set of old Women, who make it their Business to perform the Operation, every Autumn, in the Month of September, when the great Heat is abated. People send to one another to know if any of their Family has a Mind to have the Small-Pox: They make Parties for this Purpose, and when they

† Was Merit to be estimated, rather by the Nature of Things, than vulgar Opinion, this British Lady who first introduced this Practice into England (by which so many Thousands of Lives have been saved) certainly deserved, and, perhaps, in a more grateful Age, would have had a Statue erected to her Honour, preferably to any of the illustrious Destroyers of Mankind.

they are met (commonly fifteen or sixteen together) the old Woman comes with a Nut-shell full of the Matter, of the best Sort of Small-Pox, and asks what Veins you please to have opened. She immediately rips open that you offer to her, with a large Needle, (which gives you no more Pain than a common Scratch) and puts into the Vein as much Matter as can lie upon the Head of her Needle, and after that, binds up the little Wound with a hollow Bit of Shell, and in this Manner opens four or five Veins. The Children or young Patients play together all the rest of the Day, and are in perfect Health to the eighth; then the Fever begins to seize them, and they keep their Beds two Days, very seldom three; they have very rarely above twenty or thirty in their Faces, which never mark, and in eight Days Time they are as well as before their Illness. Where they are wounded, there remain running Sores during the Distemper, which I don't doubt is a great Relief to it. Every Year Thousands undergo this Operation, and the French Ambassador says pleasantly, that they take the Small-Pox here by Way of Diversion, as they take the Waters in other Countries. There is no Example of any one that has died in it; and you may believe I am well satisfied

fied of the Safety of this Experiment, since I intend to try it on my dear little Son. I am Patriot enough to bring this useful Invention into Fashion in England; and I should not fail to write to our Doctors very particularly about it, if I knew any of them, that I thought had Virtue enough to destroy such a considerable Branch of their Revenue, for the Good of Mankind. But that Distemper is too beneficial to them, not to expose to all their Resentment, the hardy Wight that should undertake to put an End to it. Perhaps if I live to return, I may, however, have Courage to war with them."

In the Year 1719, Inoculation was introduced into France; but tho' it was practised there so long since, tho' such a celebrated Poet as Mons. de Voltaire, and such an eminent Philosopher as Mons. de la Condamine, have exerted their utmost Abilities in order to establish it; and tho' the Children of the Duke of Orleans were successfully inoculated at Paris, several Years ago; yet still it is more sparingly practised in France, than in any other Nation in Europe, Spain only excepted: And even during the last Year, the Faculty of Physic, and the Faculty of Divinity, were employed in examining whether Inoculation
ought

ought to be tolerated or prohibited. Indeed, it is said, that it was suspended by the Parliament of Paris, and the Consideration of it referr'd to a Committee of Divines, and Physicians; and that twelve of the latter met, six of whom being of one Side, and six of the other, *dijudicatio ad aliud demum tempus dilata fuit*. In order to end this Dispute, I would only ask them, Whether it is lawful to save Life, or to destroy it? That in a Country where (to use an Expression of Boerhaave) *Theologorum ignorantia dominatur*, Superstition should prevail over sound rational Judgment, is no Way surprizing, but that Physicians should be capable of questioning, whether the most salutary Practice that ever was discovered, should be adopted, or rejected, almost surpasses Belief.—This is the more astonishing, seeing this same Faculty of Physic (as I have been informed) applied to Dr. Huxham, and some other eminent Physicians, in England, for their Sentiments of Inoculation, and received from them the most favourable Account.

Notwithstanding Lady M. W. Montague sent such a lively Description of the Advantages of Inoculation, in the Year 1716, no one had the Courage to put it in Practice in England, till her Ladyship returned in 1721, when the first

first Experiment was made on her own Daughter, who having a favourable distinct Sort of Small-Pox, laid the Foundation of Inoculation in England. After which, in the same Year, Dr. Keith's Son, five condemned Criminals in Newgate, and three other Persons, were successfully inoculated, by Mr. Maitland, the Surgeon that had attended the Ambassador in his Journey to Constantinople.

Few of the English Physicians approved of it at first. After some short Time it met with the Countenance of Dr. Mead, and Sir Hans Sloane; but above all, the Princess of Wales, of a Genius superior to that of the rest of her Sex, soon discovering the Propriety and Reasonableness of this Practice, gave the greatest Encouragement to it, by inoculating her own Family; † by which Means her Royal Highness preserved not the Lives only, but the Beauty, of some of the most amiable Princesses in Europe.

Such an Example would probably have been followed by Persons of all Ranks, if an unfortunate Event had not happened at this Juncture. — A Son of the Earl of Sunderland, who
was

† The Royal Family were inoculated in the Beginning of the Year 1722.

was inoculated soon after the Royal Family, died; and tho' his Death was proved to have been owing to an Hydrocephalus, or Collection of Water in his Brain, it helped to furnish Objections to such as were previously Enemies to the Practice, but notwithstanding it still met with Encouragement, tho' much less than was expected; the whole Number of the Inoculated in England during the three first Years amounting only to 477.

Lady Mary Wortley Montague, was much deceived, in thinking, she should be obliged to war with the Faculty, on Account of her Endeavours to introduce Inoculation. The principal * Auxiliaries she met with were the Physicians themselves, among whom no one distinguish'd himself so eminently as the celebrated Dr. Jurin, who being possess'd of the greatest share of Classical, and Philosophical Learning, as well as the most profound Medical Skill, employed his great Abilities in making the most accurate Observa-
tions

* As the Faculty have taken such Pains to establish a Practice that is manifestly injurious to their own Interest, it is hoped the World will be convinced of their Sincerity, and confess, that their Representations of the Benefit of it to Mankind are such as may justly be depended upon.

tions on the Effects of this Practice. He by procuring authentic Narratives of the Success with which it was attended, and comparing them with Lists of those who died of the Small-Pox in the Natural Way, gave the most convincing Proofs of the Preference that ought to be given to Inoculation. His Writings carried with them irresistible Conviction: They enlighten'd the Understanding of the Ignorant, confuted the Errors of the Mistaken, and, in great Measure, helped to remove the Fears, and Doubts of the Timorous and Superstitious. He published Annual Accounts of the Success of Inoculation, during several Years; but from the Time of his discontinuing his Narratives, till the Year 1746, this most excellent Practice seemed to decline, in London. In that Year it regained new Life, and Vigour, by the Establishment of the Hospital for Inoculation; to which Persons of the greatest Rank, as well as many of inferior Order, soon became Contributors, at the Head of whom is an illustrious Personage, who embraces all Opportunities of encouraging, and protecting, every laudable Scheme for the Benefit of Mankind.

Within the Period just mentioned, I began the Practice of Inoculation in the West of England, where

where I found the Prejudices against it so great that I was obliged to practise as it were in the Dark, visiting my Patients only by Night, and doing Good by Stealth, as will be made appear by a Letter from Dr. Alured Clarke, our late worthy Dean, who founded the Devon and Exeter Hospital, in the Year 1741. I could wish such a laudable Example might be imitated; and that an Hospital was established here for Inoculation. Such an Undertaking could not fail of being encouraged by the principal Inhabitants of this great and opulent City, and County, many of whom have experienced the Benefit of Inoculation in their own Families.





T H E
P R A C T I C E
O F
I N O C U L A T I O N,

I M P A R T I A L L Y C O N S I D E R E D.

In a L E T T E R, &c.

To Sir EDWARD WILMOT, Bart.

✂✂✂✂ S you, Sir, are the Person that gave
✂✂ A ✂✂ me the first Notion of Inoculation,
✂✂✂✂ and as my Method is principally
founded on your Precepts, you will give me
Leave to acquaint you with the Success that
has attended it.

The Difficulties I met with in the Beginning of my Practice, may partly be guessed at, by the following Letter from Dr. *Clarke*, Dean of *Exeter*, who desired me to inoculate

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one of his Servants. Tho' I had from my first Entrance on the Study of Physic, and my early Instructions from you, a very high Opinion of Inoculation, I was averse to the putting it in Practice in *Exon*, without a positive Order under the Dean's own Hand, which occasioned the following Letter.

To Dr. A N D R E W.

Dear Sir, Winchester, Nov. 19, 1741.

WITH REGARD to *Margaret*, I do here under my Hand, clear the Doctor and Apothecary of all intentional, or actual Guilt, of any Thing that may happen to her, in the Course of their lawful Employments. When I left *Exeter*, she was very desirous of being inoculated. I hope nothing has happened that can intimidate her. A Doctor came here t'other Day, and produced a List of sixteen hundred Persons, who were inoculated between *Farnham* and *Chichester*, and the intermediate Country, of which I believe there were not six Miscarriages.* In short, if you think her a proper Subject,

* The Dean was so very fearful of exceeding the Truth, that he appears to have fallen great-

Subject, and she is really willing to submit to the Operation — I earnestly desire it ; and doubt not of *God's Blessing on so reasonable an Attempt*. But it is with this *sine quâ non*, that no-body, not even her Fellow-servant, may know it is by Inoculation, till the Prejudices against it are a little more worn off.

I am, &c.

A. C L A R K E.

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This

ly short of it, as is evident by the following Note, printed in the Bishop of *Worcester's* Sermon, which was preached before the Governors of the Hospital for Inoculation, *March 5, 1752*, and evidently refers to the same Account as *that* given by the Dean, in his Letter to me. —

“ The learned Dr. *Langrish*, of *Winchester*, gives the following Account. — About ten Years ago the Small-Pox raged so furiously in *Winchester*, and the neighbouring Towns, that great Numbers were induced to be inoculated. In *Portsmouth*, *Chichester*, *Guilford*, *Petersfield*, and *Winchester*, we reckon near Two Thousand that were inoculated at that Time, and (except two Women, who were *both with Child*, and inoculated contrary to the Advice of their Physicians) I don't remember to have heard of one bad Accident that befell any of them.”

This *Margaret* was the Dean's Cook, aged 41, very corpulent, and, in Appearance, an improper Subject for Inoculation; however she went thro' the Distemper without any bad Symptom.

This, and some more Instances of the like Kind, encouraged me to be bolder, and no longer to practise (even in *Exon*) in the secret Manner enjoined by Dean *Clarke*. I think proper to mention one other, before I proceed to give an Account of my Method, and its Success.

Mr. *Cholwich*, a Gentleman of great Worth, and considerable Fortune, applied to me for Directions concerning the Inoculation of his Children. The Success of which appears by the following Letter,

To JOHN CHOLWICH, *Esq*; in EXETER.

Dear Sir,

Oldston, Dec. 1, 1741.

AS you were so kind as to give me your Advice, and Approbation, on the Inoculation of my Children, I do not doubt but it will be agreeable to you, to hear of our Success. November the 10th, after about
three

three Weeks Preparation, the Operation was performed on all three.

My Son continued very well till the seventh Day after the Operation, when he complained of a Pain in his Head, which was his only Complaint, and that not violent, till the Eruption, which was on the ninth Day.

My Daughters grew sick the Day after their Brother, and for two Days were delirious at Times; but from the Time of the Eruption, which was on the tenth, all thro' the Distemper were very calm and well.

The Number of Pustules in the Face, did not exceed 60 in either of them, neither had they many in their Bodies. They turned the seventh Day in all, and without the least bad Symptom of any Kind,

The Disorder proving so exceedingly favourable, I had not any Occasion to confine them to their Beds, after the Eruption. They eat, drank, and slept very well during the whole Distemper, and had scarce any Occasion for a composing Draught.—The tenth Day from the Eruption, they were all so well as to be purged; and are now, I bless God, as well as I could wish.

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Upon the whole, I am convinced, the Method of Inoculation *is a very safe and useful Practice*; and as such, I cannot help wishing it may meet with a more general Approbation, especially as the Small-Pox hath been so fatal of late in this County. ——— If you think the Example I have set, will incline others to imitate it, you may make this Account as public as you think proper. I am, with due Compliments to your whole Family,

*Your most affectionate Kinsman, and
Most obliged humble Servant,*

WILLIAM CHOLWICH.

Tho' Inoculation has been introduced into *Exeter*, and the County of *Devon*, more than twenty three Years, as appears by the above Letters, it is still very sparingly practised; and the Prejudices against it being not yet *worn off*, I am induced to publish this short Treatise.

The Inoculated Small-Pox, seems to be attended with less Danger, than the Natural, because the Infection is, or always may be communicated by *mild Pus*, thro' slight superficial Incisions, to sound healthful Bodies, properly disposed for its Reception, in the best

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Season of the Year, and at a Time of Life that is apprehensive of no Danger; and because a proper Regimen is observed during several Days previously to the Disorder: Whereas the Natural may seize weak or dis-tempered Persons, at an advanced Age, and in a Season of the Year, either violently Hot, or intensely Cold; be communicated from the most virulent Sort, by extremely *acrid* fetid Effluvia, taken into the Lungs, and Stomach,* or soon after Intemperance, or Excess of any Kind, hard Labour, or fatiguing Journies.—Is it, then, a trivial Concern, that all the above Advantages may be obtained, and the unhappy Circumstances effectually prevented, by Inoculation?

Whenever the Person to be inoculated, is of a full sanguine Habit, I always order Blood to be drawn, and generally give three or four Doses of Purging Physic, with a few Grains of Calomel, at proper Intervals, and an Alterative Medicine, with some Prepara-
tion

* From this Cause proceed the sore Throats, Difficulty of Breathing, and violent Vomittings, so frequent, and so fatal, in the natural Small-Pox.

tion of Antimony, every Night, on the Days that no Purging Physic is taken. This has been my general Practice, and, as such, I venture to publish it; tho' I am sensible it may be liable to many Objections.

Dr. *Wall*, of *Worcester*, has favoured me with the following Strictures on it, in a Letter, dated *Dec. 17, 1764*—“ As to the Use of Mercury, and Antimony, in the Preparation of Persons to be inoculated, I confess I have some little Doubts. I agree, that they may be extremely useful as Evacuants, to carry off stagnant Bile, or unload the Viscera of any putrid Saburra, which they effect better than any other Articles in the *Materia Medica*. But I should hesitate a little as to their Use, if given only as Alteratives, especially with regard to Mercurials, which are known to break down the Red Globules, and dissolve the Crasis of the Blood.—Indeed to speak plainly, I don't think there is one Case in ten that requires any further Preparation, than some gentle Evacuations, and a little Circumspection in regard to Diet and Regimen; and in those Persons, where a nicer Preparation is requisite, it seems impossible to fix any one Method,

Method, which shall suit all the different Constitutions."

To these Observations of my worthy Friend, I will reply in the Words of Dr. *Huxham*, who gave the following Answer to some Queries I sent him, concerning the Use of Mercurials, and Antimonials, as Preparatives for Inoculation.

Plymouth, Jan. 23, 1765.

" So long ago as 1724, I suggested, * that Mercurials, as well prepared Calomel, or the like, might be of Use in the Small-Pox. I seldom fail of giving a Mercurial Purge, † or two, (but with no heating Drastring Cathartic) previously to the Inoculation of a Person for the Small-Pox. Sometimes also I give my Antimoniated *Æthiops*, especially when I suspect a Verminous Seminium, foul obstructed Viscera, or Glands.—The Use of Mercurials, and Antimonials, will more fully appear, as preparatory to the Inoculation of the Small-Pox, by what the ingenious Dr. *Benjamin Gale*,
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of

* Philosoph. Transact. No. 390.

† Sir *Edward Wilmot's* Practice corresponds, in this Respect, with Dr. *Huxham's*, especially in regard to Children.

of *Connecticut*, in *New-England*, hath communicated to me, in his Dissertation on the Inoculation of the Small-Pox in *America*; in which he says, *before the Use of Mercury, and Antimony, in preparing Persons for Inoculation, one of 100 of the Inoculated died, but since only one of 800.*"

But notwithstanding *Dr. Huxham* has furnished me with so good an Argument in support of my Method of Preparation, I must not conceal that he says besides, "When he has healthy young Persons to Inoculate, he seldom gives more than a few gentle cooling Purgatives, enjoining them to a light easy Diet, Abstinence from Flesh, or Fish, for a few Days, and carefully guarding them against violent Exercise, and taking Cold."

Thus does he seem to agree with *Dr. Wall*; and the little Necessity there is for Preparation, is confirmed by the Account I received lately from *Dr. Swan*, of *Newcastle*, who informs me, *that in his Neighbourhood 70 or 80 Persons were Inoculated without the least Preparation, and all recovered of the Small-Pox.*

But with great Deference to the Opinion of so good Judges, as it is impossible always to be certain, whether there may not be a

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Verminous Seminium, as Dr. *Huxham* calls it, I think it not improper to give a Mercurial Purge or two, even to young Persons, who in all Appearance are quite healthy. I have at this Time (*Feb. 16, 1765*) under my Care a young Man, who told me, when I began the Preparation, he had no Complaint of any Kind, neither could I discover the least Symptom of any, yet by taking two Mercurial Purges, he discharged several Worms. And, it being very necessary to take particular Care, that Children be free from Worms, at the Time of Inoculation, besides the Medicines recommended above, I sometimes give them Pink Root, or Bear's Foot.* This last is certainly one of the best known Vermifuge Remedies, tho' on account of the bad Effects

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that

* Our great Botanist, Dr. *Hill*, says, he is very confident that all the Mischief, which may have been ascribed to this Plant, has been in Consequence solely of giving one Species of it for another: One being absolutely Safe, and Mild, in it's Effects; the other a Rough and Violent Medicine, and frequently deleterious. The true Sort, is the third Article, under *Helleborus*, in *Linnaeus's Species Plantarum*, a low Plant. The deleterious Plant, is the fourth Article, and is two or three Feet high.

that sometimes attend it, not sufficiently made Use of.

During the Preparation, I allow my Patients to eat Flesh only at Dinner, every other Day, and then nothing but Veal, Chicken, and the like, and the intermediate Days, Puddings, Fruit Pies, Rice Milk, &c. and for Breakfast and Supper, whatever they choose, provided they eat no Flesh. A Glass or two of Wine, or Wine and Water, grown Persons may be allowed at Dinner.

The above is all the Preparation that I have generally found necessary, but it may not be amiss to mention, that Dr. *James* says, his Powder, given in small Doses, as an Alterative, is an excellent Preparative for Inoculation.—As being a Preparation of Antimony, I cannot disapprove of it, and I imagine it may be of Service in a viscid State of Blood.

The Preparation being finished, the Operator must make an Incision in each Arm, with a Lancet, just deep enough to wound, but not to penetrate the Skin, about half an Inch long, into which is put a small Thread, impregnated with variolous Matter, and bound on pretty tight, during sixteen or eighteen Hours.

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The Thread, by being drawn with a Needle through three or four of the Pustules, when fully matured, will be sufficiently impregnated. The Incisions are to be dress'd every Day with Yellow Basilicon, or (if there should be any fungous Flesh) with dry Lint. After the Operation, the same Regularity with regard to Diet, as is already mentioned, must be continued till the sixth Day, and then I repeat the same Dose of Purging Physic, recommended for the Preparation, but without the Calomel.

After the sixth Day, I forbid all Flesh, and Wine, till the Eruption is completed, and do not permit my Patients to go off the Floor, where they are, lest by any Exercise they may heat their Blood, and thereby increase the Fever, which usually begins about the End of the seventh, or Beginning of the eighth Day, after the Operation, and sometimes with as much Violence, as in the natural Small-Pox. From that Time, I confine my Patients to their Beds, till the Eruption.

When the Fever comes on, my Method varies, as the Case may require, it being sometimes necessary to bleed, purge, give Emetics, Clyf-

Clysters, &c. but if the Symptoms are mild, few Medicines will be required.

As soon as the Pustules appear, (the Time for which is usually at the End of the ninth, or Beginning of the tenth Day from the Operation) my Patients are frequently as free from all Complaints, as in the most perfect Health; and after the eleventh Day, I permit them, whether they are grown Persons, or Children, to rise every Day, and stay out of Bed several Hours; to eat slight Chicken, or Veal Broth, every Day for Dinner; and grown Persons, if they earnestly desire it, may be allowed to eat a Bit of Chicken, Plaice, or Whiting; and to drink a Glass or two of Wine and Water; and, from that Time, I give but few Medicines, if the Disorder proves favourable.

The Small-Pox by Inoculation, generally turn on the seventeenth Day after the Operation, and then the Wounds, made by the Incisions, begin to discharge plentifully; to which Discharge, many, how justly I cannot say, attribute the Favourableness of the Symptoms on the Turn. About the twentieth, or twenty-first Day, I repeat the Purge, and then permit my Patients to return to their usual

usual Way of Living; strictly enjoining them to take four or five Doses of purging Physic, at proper Intervals.

Some grown Persons, being not capable of getting the better of their Fears, in case they are restless, I give them at Night twelve or fifteen Drops of Liquid Laudanum, in a Saline Draught; and to Children a Drachm, or two of White Poppy Syrup. If my Patients should be three Days without a Stool, (which seldom happens) whether they are grown Persons, or Children, I order for them an Emollient Clyster.

During the Course of Twenty-three Years, I have inoculated more than three hundred Persons, in the above Method, not one of whom has miscarried; and in my whole Practice I have only lost one, whose Case being frequently mentioned to the Prejudice of Inoculation, it may not be improper to give some Account of it here.

This Person was a promising Youth, of nine Years of Age. He had been prepared at his Father's House, about thirty Miles distant, in the usual Manner (except the Omision of Calomel); and being brought to *Exeter*, the Operation was performed *September 27th*,

1751; from which Time till Oct. 3d, he remained very well. In the Evening of that Day, the Symptoms, which usually precede the Eruption of the Small-Pox, came on with some Degree of Violence, and continued, without any Remission, till the 7th in the Morning, when he brought off two large Worms; after which a Gleam of Hope appeared, but this was of a very short Duration, for the most alarming Symptoms soon returning with greater Violence, in the Evening of the same Day, he died. The perpetual Vomiting he was afflicted with (from Worms, as I suppose, in his Stomach) made it impossible to give him the least Relief; and to them I attribute his Death, for the few Eruptions that appeared, seemed to promise a favourable Sort of Small-Pox.

Fourteen or fifteen Years ago, it was not a constant Rule with me to give any Mercurial Medicine, during the Preparation; but since this unfortunate Event, I have seldom, if ever, omitted it, except in very young Children, and uninterrupted Success recommends the Practice.

I cannot avoid mentioning, that as this Young Gentleman resided at so great a Distance

tance from *Exeter*, I was not desired to see him during the Preparation; but since the above Accident, I have made it an invariable Rule, never to undertake the Inoculation of any Person I don't visit, and am thoroughly satisfied is properly prepared. If a Visit had been desired, I should perhaps have ordered Bear's Foot, Calomel, or some other Vermifuge, which might have prevented the Train of bad Symptoms that proved fatal to him.

I find, among my Notes, that the next Persons I inoculated, were four Children, of a reputable Tradesman of this City; and as their Case was very remarkable, I will give a short Account of it.

October 2, 1751, Mrs. S—— applied to me to inoculate four of her Children. As they all appeared to have Worms, from their swelled Bellies, pale Countenances, Loss of Appetite, and fetid Breath, I gave them, at different Times, several Doses both of Calomel, and Bear's Foot; by which, during the Course of their Preparation, they discharged *one hundred and thirty round Worms*. These Children were inoculated the 21st of the same Month, and had the Small-pox so favourably,

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that the Number of Pustules in all, scarce exceeded one hundred.

Let any one reflect, what might have been the Consequence, if the Small-Pox had seized them before the Worms had been discharged, and how hazardous it is to inoculate Children, without giving them Calomel, Bear's Foot, or some other powerful Vermifuge Medicine!

Among all that I have inoculated, not more than ten have had any considerable Number of Pustules, only three have had the confluent Sort, and even these three had scarce any secondary Fever.

Persons who have the Natural Small-Pox in a severe Manner, are generally afflicted with a sore Throat, and a Difficulty of Breathing, which, those who are inoculated, are generally either quite free from, or so slightly affected with, as to find little or no Inconvenience from them, and by this Means they are secured from the two most fatal Symptoms attending this Disorder.

I most earnestly advise all Persons to avoid the Natural Small-Pox as much as possible, which I think full as infectious as the Plague, and the worst Sort of it much more grievous
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to be born, and productive of worse Effects, to such as survive the Distemper. I have such an Abhorrence of it, that I should live in perpetual Misery, if I thought there was the least Probability of being infected with it a second Time.

This most dreadful, and most destructive of all Distempers, is rendered so mild by Inoculation, as scarce to deserve the Name of a Distemper; tho' I hardly think the *French Ambassador's* Observation will be verified, *That People will take the Small-Pox as they drink the Waters, for Diversion*; and yet I remember some Years since, I inoculated four young Men in one House, who play'd at Cards every Day during the Disorder, except while the Eruptive Fever lasted.

The Lady who introduced Inoculation into *England*, says, "*There is no Example of any one that has died in it*:" And I have heard, it is the Opinion of several Persons in *England*, that no one dies of Inoculation. Whether this is true, or not, may be a Matter of Doubt; but I am firmly persuaded, if Inoculation should be universally practised, all Apprehension of Danger from the Small-Pox (if not the Disorder itself) would be annihi-

lated in a few Years.— I have practised it on Persons of almost all Ages, from that of three or four Months to fifty or sixty Years, and to judge by the Success, it may be difficult which to prefer ; but when my Opinion is asked, I recommend any Time between three and twelve Years of Age, and particularly advise all Females to be inoculated within that Period. With regard to the Season, I have been concerned with Inoculation in every Month of the Year, but I prefer the Spring and Autumn.

Some of the Advocates for Inoculation mention it as an Advantage attending the Practice, that it has *the Choice of Subjects*, as if none were to undergo the Operation, but those who are healthy, strong, and of a sound Habit. These Advocates derogate from the Esteem that ought to be paid to it. I have inoculated several of an highly scorbutic, and even of a scrofulous, Habit, who have had the Small-Pox as favourably as any I have been concerned with ; but then I confess they have been longer in a Course of Preparation : And so far am I from choosing my Subjects, that I cannot recollect ever to have refused more than one or two Persons that
desired

desired to be inoculated, for I think it is the Duty of every Physician to inoculate all that offer, if they are in Health, except Women with Child.

Sucking Children*, who are born of healthy Parents, seem at first View the most proper Subjects, as such are free from impure Juices; but I always decline the Inoculation of them, because it is extremely difficult to give them any Assistance by Medicine, in case they should stand in Need of it, and the Anxiety of the Nurse frequently spoils her Milk, by which Means a Disorder, perhaps as dangerous as the natural Small-Pox itself, may be produced;

* “ Dr. Mackenzie says, the most favourable Period for Inoculation, seems to be that which precedes the Breeding of Teeth in Children.—— Dr. Gatti says — *L'Age le plus propre pour l'Inoculation est le plus tendre*: But I have lately been informed by Dr. Young, of *Edinburgh*, that tho' he had inoculated a great many Infants of eight and ten Days old, he could never bring out an Eruption like the Small-Pox; and therefore, he says, the most proper Age for inoculating Children, is from two to five Months; but he allows, it was long reckoned, that Children of three Years old were of the most proper Age for Innoculation.”

produced, of which I have seen some Instances in my own Practice, and have been forced (in order to preserve the Life of my Patient) to procure a new Nurse in the Midst of the Disorder.

Another Argument against inoculating young Children is, that more than One-third Part of all who are born, are supposed to die before they are two Years of Age (at least such is the Calculation within the Bills of Mortality) and consequently the Risk of having some other Disorder with the Small-Pox, is greater at that Time of Life than at any other, which, perhaps, may be the Reason why Inoculation has been found so unsuccessful in young Children ; for it appears, by Dr. *Kirkpatrick's* Analysis, P. 125, That of those who have been inoculated under two Years of Age, more than one in ten have died : And Mr. *Scheuzer* says, that in the Year 1728, one hundred and twenty-one Persons were inoculated, of whom three died, which is one of the most unfavourable Accounts that have been published. But then he adds, of these three, one was only eight Months old, another eleven Months, and the third a Year and half : And by Accounts received lately from

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North-America, by Dr. *Huxham*, and by him transmitted to me, I am informed, that only five have died of three thousand who were inoculated : And the same Accounts say, that these five were all young Children.

Reflecting on the above Particulars, I recommend it to all Parents to keep their Children from Infection (if possible) till they are three Years of Age. All my own, in Number five, were inoculated between the Age of three Years and seven, and had not fifty Pustules in their Faces among them all. My Wife indeed, was not inoculated till she was thirty-five ; but tho' so far advanced in Years, and tho' the Eruption was large, yet she went through the Disorder without the least bad Symptom. Having therefore experienced such *signal Advantages* from Inoculation, in my own Family, I cannot any longer deny myself the Satisfaction of thus publicly recommending it to others (tho' at the Risk of destroying such a considerable Branch of my Revenue, as Lady *M. W. Montague* calls it) and especially, as I have never known, during the thirty Years of my Practice, the Natural Small-Pox so general, or so fatal, as during the last six Months.

Having,

Having, I hope, fully proved the signal Advantages attending Inoculation, I will next endeavour to confute the most popular Objections against it.

The chief Argument urged by *foolishly* fond or superstitious Parents, against this Practice, is, that it brings a Distemper upon their Children, which they might never have, and that if any one of them should die, they should never forgive themselves, on Account of their having (as they term it) presumptuously tempted Providence.

In order to confute this Objection, I beg proper Attention may be paid to the following Remarks—— The present Bishop of *Norwich*, in his Sermon on Inoculation, says, “To venture upon an Action, certainly known to be displeasing to God, as having been directly forbidden by Him, is, in Scripture Language, tempting God. But before such an Action as this is condemned, as a Temptation of God, you must prove it to be actual Disobedience, or certainly so by direct Inference; which neither has been done yet, nor I believe ever will be done. Nor can Inoculation be called not depending upon Providence, any more than every other prudential Act, especially

ally every other preventive Act, which human Wisdom, and Foresight, may and daily does suggest."

The present Bishop of *Gloucester*, in his Sermon on the same Subject, has the following Observation—— "By what strange Fate it is, I know not, says his Lordship, but so it has happened, that, at a Time when Religion has lost almost all its Influence on the Minds of the People, Superstition still keeps its hold; and this most beneficial Practice of Inoculation is regarded with Abhorrence by them, as a kind of Impiety, a tempting God, and mistrusting his general Providence. Now the best Confutation of such monstrous Absurdities, is the Success of the Practice."

The Rev. Mr. *Some* says, "'Tis obvious that we are to depend upon the Care of Providence, only in the Way of our Duty. To talk confidently of our trusting God, while we omit the proper Means of escaping the Dangers which surround us, is not Faith, but unwarrantable Presumption."

Thus far these learned Divines—— In a Word, Providence has given us *Reason* to discover what is most for our Advantage, and has furnished us with a *Power* to execute it:

To neglect, therefore, the Use of them for that Purpose, is not to trust in Providence, but to be presumptuous, and ungrateful.

I will next consider the great Risk of having the Small-Pox in the Natural Way, as I am sensible the pleasing Imagination of being able to avoid it, induces several to neglect this most beneficial Practice. But if such Persons would reflect, that there is scarce *one in a thousand* that escapes this Distemper, (among those, I mean, that frequent public Places, and converse familiarly with Mankind) and that at least one in five dies, of those who have it after they are arrived at Years of Maturity, I believe they would change their Way of Thinking.

If my Readers will attend to the Observations here subjoined, and which are taken from the most celebrated Practitioners in *England, France, Italy, Holland, and Germany*, they will be convinced, that my Account of the Danger of Infection, is no way exaggerated.

Riverius * says, “ You can scarce find one of a Thousand, who once in his Life is
not

* *Ex hominum millibus vix unum reperire licet qui semel saltem in vitâ hunc affectum non patiatur.* RIV.

not afflicted with this Distemper." *Sennertus* says, " This Disorder is so common, it is difficult to find any one that has not, at some Time or other, been infected with it."——

Sydenham says, " It seizes whole Families, without sparing a single Person."——*Hoffman*

says, " No Distemper, except perhaps the Plague, is so contagious."——*Monf. Gatti*

says, " It is allowed, that almost all Persons have the Small-Pox once in their Life."——

Dr. Mead reckons scarce one in a thousand escapes it.

Tho' the above learned Physicians represent the Danger of Infection to be so great, it is not to be presumed, they believe that not more than one in a thousand dies, without having had the Small-Pox; their Meaning is, that very few go through Life without having this Disorder; for, according to the

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——*Variolæ omnibus hominibus adeo communes sunt, ut vix reperiatur, qui non aliquando iis inficiatur.*

SENNERT.——*Variolæ integras familias contagio suo adflantes, nimini parcunt.* SYDEN.——*Vix ullus alius*

morbis, exceptâ forsan pestilentia, adeo contagiosus est, ac variolarum. HOFFMAN.——*On convient que*

presque tous les hommes ont la petite verole une fois en leur vie. M. GATTI.

most exact Calculations, one-half of all who are born never have the Small-Pox at all, and of the other half, as one in seven dies of this Distemper, it carries off one-fourteenth Part of Mankind, which is much more than can be said of any other Distemper; and as Inoculation frees us from this dreadful Calamity, it may justly be reckoned the greatest Blessing that ever was discovered.

If the Small-Pox is really so contagious as the above Practitioners represent it, how absurd are those who expect to avoid it? And how can Parents reconcile it to their Consciences, to let their Children run so great a Risk of dying of the Small-Pox in the Natural Way, since Providence has made known an almost infallible Method of securing them from all Danger in that Distemper, and thereby avoiding what may be reckoned one of the chief Scourges of Human Nature?

I repeat it, that Inoculation is almost infallible, and if its Success was more certain than it really is, Mankind might be inclined to trust entirely to their own Skill, and lose all Dependence on the Deity. Some Authors, however, represent it as quite infallible.— Dr. *Timoni*, who practised at *Constantinople*, says,
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in one of his Treatises on this Subject, that “ not one Person of those who were inoculated, died.” And in another, that “ during a Course of seven Years, and even when the most malignant Fevers raged, he had seen it practised on Persons of every Age, Sex, and Condition, without the least bad Accident of any Kind.”

Pylarini, who practised also at *Constantinople*, makes the same Observation, and in the same Words, adding, that “ every one may be assured, when Inoculation is conducted in a proper Manner, and after the necessary Preparation, it promises *Safety that is morally certain.*”

But why should we have Recourse to Foreigners for the Recommendation of a Practice, which has been so successful in our own Country? If the Superstitious and Timorous would give themselves the Trouble carefully to peruse the excellent Sermons published by several very eminent Prelates of the Church of *England*, on Purpose to recommend Inoculation, I am convinced, no Scruple of Conscience, nor Apprehension of Danger, would any longer deter them from pursuing a Practice which promises such *certain* Benefit.

By

By perusing these Sermons, they will find every Religious Doubt resolved that can be suggested against Inoculation, and they will be convinced, that of those who are inoculated, only one in 343, and of those who are admitted into the Hospital with the Natural Small-Pox, more than one in four dies. If such is the Fate of these miserable Objects, when supplied with Food, Physic, and every Convenience suited to their unhappy Circumstances, guess the Condition of those (and many such there are) who are destitute of almost all the Necessaries of Life: At this Time of their greatest Distress, every Ear is deaf to their Solicitations, every Door is shut against their Petitions—— This being a true Representation of some of the Distressed, perhaps, in every Parish in the Kingdom, I think it incumbent on the Overseers of the Poor, to take Care, that all who receive their Pay may be inoculated at proper Seasons.

A Thought just now occurs to me, which seems not unworthy of the Attention of the Government——The Indians in *North-America* are greatly exasperated against the *English*. The Small-Pox (as we are informed by the public Papers) now rages so violently there,

there, that scarce one recovers who is seized with that Distemper. If the *English* could contrive to introduce Inoculation among them, it might be the Means not only of preserving their Lives, but that of their yielding a voluntary Subjection ; and this is the more needful, at present, if it be true, that the *French* have made them believe, the *English* infected them with the Small-Pox on purpose to destroy them.

Of all who are inoculated, if only one in 343 dies, * it may not be unfair to suppose, that the Person who falls a Victim, might be infected with the natural Small-Pox, or some other mortal Disease during the Inoculation. *Monf. de la Condamine* says, *that of 320 Persons, taken at a Venture, it is probable that one will die within 40 Days.* It therefore follows, that of 320 Persons inoculated of all Ages, one is to die within that Term: If *Monf. de la Condamine's* Calculation is just, it behoves us to be thoroughly persuaded that no more die of Inoculation, than are absolutely necessary to keep up a proper Reliance on Providence, and

* See the Bishop of *Norwich's* Sermon, preached before the Governors of the Inoculating Hospital last Year.

and with becoming Faith and Confidence to make proper use of a Discovery which Dr. *Squire* (the present Bishop of St. *David's*) says “ is the Gift of God’s Providence to Mankind ”——A Discovery that *future Ages will envy us*, and will be astonish’d at the Opposition that has been made to it. Let such as neglect to make use of so great a Blessing, reflect, that they are counteracting the Designs of that Being, who permits this Practice to be attended with surprizing good Success.

May it, therefore, make a lasting Impression on my Readers, That if Inoculation should be universally practised, it would be the Means of saving the Lives of many thousands, who will be devoted to *certain Death* every Year, in *England* only, by the Means of Ignorance or Prejudice ;* and I hope the Time is at hand, when Parents will think they ought never to forgive themselves, if they should neglect to make a right Use of such a providential Discovery.

I hear

* *De la Condamine* says, “ In *France* 28,000 Persons are devoted to Death yearly, which it would be in our Power to preserve by Inoculation.”

I hear some Parents say, they will let their Children be well prepared, and then carried to a Person who has the Small-Pox in a favourable Manner—Nothing can be more absurd, nor inhuman than this Practice, for by it they expose their Children to a much greater Hazard, than in permitting them to be inoculated, and alike *tempt* Providence, by bringing on them a Distemper that they might never have ; and lest they should lull themselves in the Security of being able to procure, by this Means, a favourable Sort, I beg it may be remembered, that Preparation avails much less towards mitigating the Severity of the Natural Small-Pox, than unexperienced Persons may apprehend, the Success of Inoculation depending principally on the *Manner* of communicating the Infection ; for which Reason, I am intirely of Dr. Heberden's Opinion, *That it is better to have Inoculation performed by any body, and in any manner, than to suffer the Disease to come on in the Natural Way, though assisted by all the Help that Art can afford.*

If any should be offended with the Boldness of the Expression, *Devoted to certain Death*, I must acquaint them, that every

Method hitherto discovered for curing the Natural Small-Pox, frustrates our Hopes; and whether we practise in the cooling Method, recommended by *Sydenham*; give the heating Medicines, prescribed by *Moreton*; or pursue the middle Tract, with our celebrated Countryman, Dr. *Huxham* (which seems the most rational) or, with *Friend*, endeavour to purge off the secondary Fever; we shall still find, I believe, the Small-Pox will carry off near one in seven of those who have it naturally.

The Danger attending this Distemper made *Sydenham* declare, that the Method of curing it rests on a *slippery Foundation*, and verifies the Observation made by *Boerhaave*, that, *Vulgatâ methodo nullus nisi sponte emergit*,* by which he means, Nature not Art performs the Cure.

I might have cited many other Testimonies to the same Purpose, it being certain that

* Immediately after the above Observation, he adds — *Propylaxis insitiva videtur satis certa tutaque*. — Thus did this Great Man Forty Years since, and almost in the Infancy of its Practice, (at least in this Part of *Europe*) pronounce Inoculation to be sufficiently *safe* and *certain*.

that there are almost as many different Sentiments on the Treatment of this Disorder, as there are Authors who have written on it; what is approved by one being condemned by another, and the Method adopted in one Country being rejected in another, which is a full Proof of the Difficulty at least that attends the Method of curing the Natural Small - Pox, and seems sufficient to render the Practice of Inoculation universal.

I will next endeavour to confute an Objection which has been insisted on by some of the most learned of the Faculty, even such as are great Advocates for the Practice, and therefore demands our serious Attention. Mons. Gatti says, in his Treatise on the Prejudices to the Practice of Inoculation—(*Il est certain qu'on peut communiquer avec la petite verole les maladies qui sont contagieuses, la rougeole, par exemple la fièvre scarlatine*)—"It is certain, That with the Small-Pox, contagious Disorders, such as the Measles and Scarlet Fever, may be communicated."—The most satisfactory Answer that can be given to this Objection is, that I believe no Inoculator in *England*, where the Practice has been more general than in any other Part of *Europe*, ever met with an

Instance of this Kind ; yet I own, that in the Course of my Practice, I have frequently seen a Rash, or an Efflorescence, on the Skin, very like the Measles and Scarlet Fever, but which have constantly disappeared on the Eruption of the Small-Pox ; and I believe M. *Gatti's* Measles and Scarlet Fever, were of the same Sort, since he says, they went off *sans aucun accident considerable*. It would be strange indeed, if the Measles and Small Pox should meet in the same Person, and be attended with *no considerable Accident*. In the Beginning of my Practice such Appearances alarmed me greatly, for I learned from *Sydenham*, that the worst Kinds of Small-Pox appear like the Measles, and I should sometimes have despaired of my Patients, if the Gentleman to whom this Letter is addressed, had not favoured me with the following Observation, which I received from him in a Letter, dated *Aug. 18, 1741*.——“ There frequently is a Kind of Rash or Efflorescence on the Skin, sometimes in one Part, sometimes in another, which goes off with the Eruption, and for which I do not alter my Method.” Mr. *Burgefs*, in his Account of Inoculation, says, “ On the second Day from the Attack
of

of the Small-Pox, is often thrown out an Eruption like Fleabites, which are sometimes so thick as to put on the Appearance of the Scarlet Fever ;” but, says this same Author, “ I know of no Instance, in so many Years as this Practice has subsisted, where any Disorder, except the Small-Pox, has been communicated by Inoculation ; therefore I think it may be presumed no such Thing can happen, but that the Small-Pox is a Poison *sui generis*, and can admit of no other Mixture. I know of one Instance where the Matter was taken ignorantly by the Surgeon from a young Woman, who coming up to St. Thomas’s Hospital to be salivated for the Venereal Distemper, fell ill of the Small-Pox. Three Patients were inoculated from this Matter, and had the Small-Pox in the most favourable Manner ; nothing particular happened about the Wounds. They all grew up healthy ; two of them are now alive, and the third died at Sea of a violent Fever many Years ago.”

I will add a Case that happened in my own Practice, which may be an Illustration of the Doctrine here contended for. Some Years since, my Advice was asked for a young Girl
that

that had the Itch, and within a very few Days was seized with the Small-Pox. Soon after this Seizure the Itch disappeared, and I really imagined would have been cured with the Small-Pox; but, to my great Surprise, after that Disorder was cured, the Itch broke out afresh with more Virulence than before. Suppose any one had been inoculated with Matter taken from this Person, would the Itch have been communicated with the Small Pox? I think not — for if the Matter that caused the Itch had been mixed and blended with the variolous Matter, both Disorders would probably have been cured at the same Time.

Left the above Arguments should be insufficient to convince *Monf. Gatti* of his Mistake, I will add the Testimony of *Dr. Kirkpatrick*, whom *Monf. Gatti* calls the most famous Inoculator in *Europe* *. The Doctor says, in his Analysis, “ We proceed to consider, whether the infectious Matter is communicative of any other Disease the Person it was extracted from might have, or be liable to. For my own Part, I can with great Truth aver, That an Experience of more
than

* *Le plus fameux Inoculateur dans toute l'Europe.*

than Twenty Years on the Subject, and the utmost Reflection in my Power, have convinced me, that it never did, nor can, impart any Disease but the specific one that produced it." Dr. *Kirkpatrick* then adds an Observation similar to that just published of Mr. *Burgefs*; and all these Observations united, I hope will be sufficient to convince even Mons. *Gatti*, that no Distemper, except the Small-Pox, was ever communicated by Inoculation. However, it may be prudent to let the Matter be taken from a sound healthy Person, that has a distinct Sort of Small-Pox, as by this Means we may be certain that the Disorder will be communicated by *mild Pus*: The Practice of taking it from a virulent or confluent Sort, seems to me to be wholly unjustifiable.

Some Notice ought to be taken of the four following Objections, as the Author of them, Dr. *De Haen*, is a Physician of great Eminence.

1. *Variolas naturales haud multum periculi habere.*

2. *Inoculatas par premere periculum.*

3. *Tot esse qui bis variolas sustinent, ut pauci sit securitas quæ ex inoculatione colligi potest.*

4. *Eum esse numerum hominum variolis nunquam*

quam laborantium, ut sit perpetuò metus illum inficere qui iis in æternum caruisset.

It must appear astonishing to every one acquainted with the Nature of this Disorder, that so a celebrated Writer as Dr. *De Haen* should declare — “ That the Natural Small-Pox is not attended with much Danger, and that the inoculated Sort is equally dangerous.” In order to confute these two bold Assertions, it may not be improper to give an Account of my own Practice, during the last eight Months, in which Period I have inoculated 88 who have had the Small-Pox by Inoculation, all which recovered, and 44 in the Natural Small-Pox, of whom 25 died in the Disorder, who all had the confluent Sort, accompanied with purple Spots*, which *Sydenham* says, are almost constantly *mortis prænunciæ*—The Forerunners of Death. This is a Proof, that no one need be afraid to venture on Inoculation, tho’ the Natural Small-Pox, at the same Time,

* Many of my Patients have taken large Quantities of the Peruvian Bark and Mineral Acids, without the least Benefit; for this Sort, as *Sydenham* observes, *Pestem ipsam pernicio æquabat.*—was as pernicious as the Plague.

Time, should be attended with the greatest Malignancy.

De Haen's third Objection is — “ that so many have the Small-Pox twice, that the Security which may be obtained by Inoculation, is of little Value.” This, like the two former, is not founded on Truth, and proves only how far Persons of Ingenuity may be carried by Prejudice.—For my Part, I am clearly of Opinion, that no one ever had the Small-Pox a second Time, and therefore I cannot admit even of *Dr. Kirkpatrick's* Concession, “ That one in Ten Thousand may have it twice;” for if any one ever had the Small-Pox a second Time, I can see no Reason why it should happen only to one in Ten Thousand.

De Haen's fourth Objection, from the Number of those that never have the Small-Pox at all, seems to be sufficiently answered, by what has been already quoted from *Riverrius, Sennertus, &c.* Authors that, I imagine, this ingenious Physician must be well acquainted with.

Enough having been said in Answer to Objections, which seem to be only the Cavils of a Person that is an avowed Enemy to the

Practice of Inoculation, I will endeavour to confute *One* of another Kind, and indeed of the greatest Consequence ; for it is said, and very truly, that by Inoculation, the Small-Pox being brought into Places free from it, the Lives of many may be exposed to the fatal Effects of this Disorder, who might otherwise escape it.

In Answer to this I reply, that if the Small-Pox is of so infectious a Nature that very few go through Life without having it, except such as seclude themselves from all Commerce with Mankind, and are thereby rendered almost useless to Society ; and if it is also true, that of grown Persons more than one in four dies, as is evident by the Accounts from the Small-Pox Hospital ; and of Children, if only one in eight dies, which seems to be no unfair Representation ; it follows, that Inoculation, by infecting a Town with the Small-Pox, instead of being a Public Nuisance, may really be a General Benefit, as by communicating it to Persons in their Youth, at least one-half of those who would probably die of that Disorder will be preserved ; and, consequently, though some Individuals may suffer, the Community in
general

general will reap Advantage, from the frequent Introduction of it into populous Places.

If the Small-Pox, like the Plague, could be kept from a Country or Town for Ages, we ought to guard against it by every Method that Human Prudence and Foresight can suggest; but as we know, from the Experience of at least Ten Centuries, that scarce any Country, where this Disorder has ever been introduced, can be secured from it more than fifteen, or twenty Years at most, and that the sooner it comes, the less Injury attends it, then it follows, that the Inhabitants ought to be desirous of having it spread amongst them every two or three, rather than every twenty Years.

Though this Argument to me seems to be conclusive, yet if any one could convince me of the Fallacy of it, I would gladly recant, for I should be very sorry to seem to recommend a Practice that may be prejudicial to Society.

In order to evince the Difficulty, if not Impossibility, of keeping the Small-Pox from populous Places, and to demonstrate further the great Danger that attends the Natural Small-Pox, and the Benefit of Inoculation, I

will insert Extracts from the Accounts that were lately sent to Dr. *Huxham* by Dr. *Benjamin Gale*.

“ The Small-Pox, by the vigilant Execution of the Laws subsisting in the several *New-England* Colonies, hath never generally prevailed among the Inhabitants, except in *Boston*, where it has been epidemical in the Years 1649, 1666, 1678, 1689, 1702, 1721, 1730, 1752, and at this present Time 1764, and where the Success attending Inoculation, after much Opposition, and Endeavours used to bring the same into Disrepute, became incontestably evident.

“ In the Provinces of *New-York*, *New-Jersey*, and *Pensylvania*, the like Precautions have not been taken, and the Small-Pox has prevailed in those Provinces, especially in the capital Towns, once in six or seven Years, where Inoculation hath been practised with surprising Success, to the Preservation of the Lives of many.

“ In the Year 1721, the Number of the Inhabitants of the Town of *Boston* were 10,567, besides those who moved out to avoid the Disease. The Decumbents were 5,989, whereof 844 died, i. e. near one in seven :

seven : At this Time, in and about *Boston*, 286 were inoculated, whereof 6 died, i. e. about 1 in 48 : This was the Beginning of Inoculation in *New-England*.

“ In the Year 1752, there was an exact Account taken by Order of the Magistrates of the Town of *Boston*, and rendered upon Oath, (in order to remove the Prejudices and Objections made against Inoculation) of all who had the Small Pox, either in the Natural Way, or by Inoculation, and the precise Number of those who died of it in either ; by which Account it appears, the Number of the Inhabitants amounted to 15,734——Those who had the Distemper in the Natural Way, amounted to 5,544 ; of which 514 died——The whole Number inoculated, amounted to 2,113 ; of which 30 died.——Hitherto Mercury had not been made Use of in Inoculation in *Boston*.

“ In the Year 1764, at this present Writing, the Small-Pox is prevalent in the Town of *Boston*: By the last Accounts, 3000 had recovered from Inoculation, in the new Method, by the Use of Mercury, and five only had died, *viz.* Children under five Years ; so that it appears, that Deaths without Inoculation,

tion, is one in seven or eight ; by Inoculation without Mercury, one in 80 or 100 ; by Inoculation with Mercury, one in 800.

“ The Use of Mercury, in the Small-Pox, was first hinted by the learned *Boerhaave*. This Intimation was improved, and Mercury introduced into Practice, by Physicians in the *English American Colonies*, about 1745.

“ Several *American* Physicians claim the second Glory to *Boerhaave* ; perhaps Dr. *Thomas* of *Virginia*, and Dr. *Murison* of *Long-Island*, in the Province of *New-York*, may justly have merited that Honour, who have successfully practised, by the Use of Mercury, perhaps before any others, either in *Europe* or *America*.

“ During the late War the Small-Pox was brought into divers Towns in this, and the other Colonies, by the Return of our Soldiers for Winter Quarters, and by Seamen employed in our Navigation to the *British* Islands ; whereupon Application was made to the Legislature of this Colony, for Liberty to inoculate, and erect Hospitals for that Purpose, which was granted ; but the Small-Pox having been thereby propagated, the Practice was prohibited on very severe Penalties, and the

the Inhabitants are now in a great Measure deprived of the only Method ever discovered to the World, for escaping the Hazards attending a Disease, that has made such Havock of the Human Species, which seems to be an Invasion of the natural Rights of Mankind, and an Obstruction to their pursuing the first Law of Human Nature.

“ The well peopling the Colonies, is a Matter of great Importance to our Mother Country ; for which Reason, I cannot but think, whenever the State of Publick Affairs will permit the Parliament of *Great-Britain* to advert to the peopling and securing the Acquisitions made in *America*, they will judge it best effected, as much as may be, from our Colonies, and that the Law prohibiting Inoculation will be annulled, by their superintending Authority, as prejudicial to the Population of the Colonies.

“ It appears from Dr. *Douglass's* Account of the Small-Pox in the Town of *Boston*, where he lived, and made critical Observations the three last Times that it was epidemical there, viz. In the Years 1721, 1730, and 1752, that the Number visited with the Small-Pox in the Natural Way was 16,047,
of

of which 1858 died ; and that in 1752, the Number of those who received the Infection by Inoculation, before Mercury was made use of in *Boston* in Inoculation, were 2113 Persons, of which 30 died ; granting that those who had the Disease in the Natural Way stood an equal Chance for Life with those who were inoculated, it appears, in those three Years there died 1831 in the Town of *Boston* only for want of Inoculation, by which Deaths, according to the longest Term of doubling the Number of Inhabitants in *America*, in one Century from those Periods, the Number will be diminished 29,296, which is (from the best Calculation I am able to make) a Number far superior to those who came from *Europe* into the *New-England* Colonies, from their first Settlement to this present Day.

“ Various Sea - Port Towns, as well as some Inland Places, have been visited with the Small-Pox, since the first Settlement of the *New-England* Colonies, by which many have died ; perhaps, taken collectively, not more than one in four has recovered, partly owing to removing the Sick to prevent communicating the Infection, the want of skilful

skilful Physicians, and faithful experienced Nurses, to attend the Sick; the Inhabitants being often obliged to make Use of, some of the most abandoned Wretches, for want of suitable Persons to perform that Service.

“ It is much regretted by many, that the Practice of Inoculation may not be tolerated in the *New-England* Colonies. As the Increase of Mankind has been more impeded by the Small-Pox, than is usually imagined, it might, perhaps, be thought Wisdom to address the *Throne* for Liberty to erect one Hospital in each Colony, for that Purpose, that those at least who are engaged in Trade and Navigation, might obtain it, and be exempted from the Hazard of the Disease, while necessarily engaged in Business abroad.

“ With regard to the Medicinal Preparation, the learned *Boerhaave* says, “ The specific Corrector ought to be some Medicine directly opposite to the contagious Poison : “ That such a Specific may some Time or “ other be found out, we have some Hope ; “ and the great Use it would be of to Mankind in general, ought to encourage the “ diligent Part of Chymists to search for “ it, in some Preparations of Antimony, and

“Mercury.”—This last Medicine may, perhaps, be justly esteemed the most efficacious to correct the variolous Contagion, and prepare the Body to receive the Infection with Safety, that the whole *Materia Medica* is known to afford; it is therefore the Basis of the several Preparations used by the most eminent Inoculators in *America*.”

The above is a Summary of Dr. *Gale*’s historical Account of the Small-Pox as transmitted to me by Dr. *Huxham*; to which is added, The Method of Inoculation, as practised in *North America*; but which, not being very different from my own, as published in the former Part of this Treatise, I will not trouble my Readers with it.

Having sufficiently considered the most popular Objections against Inoculation, and, I hope, confuted them in a satisfactory Manner, I will only add a few more Instances of its *signal Advantages*, that I have been favoured with by my Friends, as I am sensible the best, if not the only Recommendation of this Practice, must be taken from its Success.

Dr. *Huxham* says, “He has hitherto lost no one Person committed to his Care for Inoculation,

culation, tho' he has inoculated several."——
 I imagine his Practice in this Way must have
 been very extensive, seeing he informs me,
 that he began to inoculate in the Year 1730.
 Tho' the Benefit of it has been experienced so
 long in this County, and even under the
 Sanction of such an eminent Physician, yet
 still in many of its Districts the Prejudices
 against it are very great; but I hope they
 will in some Measure be soon removed, and
 in order to effect it, I beg due Credit may be
 given to the following Testimonies, as they
 all have been communicated to me by Gen-
 tlemen of undoubted Honour, and Veracity.

Dr. *Baker*, of *London*, says, in a Letter I
 received from him lately, “ That every Per-
 son in and near that Metropolis, is now
 entirely for it, and that it is practised with
 universal good Success.”

Some Time since I sent a Letter to Dr.
Wall, desiring an Account of Inoculation in
Worcester, and received from him the follow-
 ing Answer.

“ Inoculation, in this Country, has been
 attended with very great Success, not one in
 many Hundreds having failed. In those who
 died, it has generally been found, that the

Patients being very desirous of undergoing the Operation, had concealed the Particulars that they imagined might prevent the Physician, or Surgeon from undertaking it, among whom were two Women with Child.—In regard to my Method, I usually draw off a little Blood, in order to judge of its Crasis, and if I do not find its Texture too loose, I am never fearful of undertaking the Operation; but if it should appear to be in a loose dissolved State, I prepare the Patients with the Bark and Mineral Acids.

“ Exclusive of the different Manner of communicating the Disorder, in the natural and artificial Infection, I have been sometimes led to think, that perhaps one Reason why the Small Pox is milder by Inoculation, than in the natural Way, may be, because it is communicated by mild Pus: whereas by the natural Infection, it is received into the Lungs and Stomach by a putrid Halitus, which (as is the Case in all Diseases arising from the Stench of putrifying Substances) will contaminate the Fluids, and bring on a putrid Fever.

“ An ingenious Gentleman of my Acquaintance is of Opinion, that where the Thread is to be kept long before it is used,

it may be best to dry it a little before it is secured in the Phial from the external Air, as by this Means any putrifactive Fermentation in the Pus may be prevented. I have been told, that Animalculæ have been observed in the Thread when put in a little Wet without this Caution, and kept a considerable Time ; but great Care ought certainly to be taken, lest by this Means the Pus should lose so much of its Efficacy, as either not to communicate the Infection, or to produce only an incompleat variolous Eruption when the Pustules die away without coming to Maturation. I confess here, however, that though no variolous Eruption should come on, after the Inoculation, yet, if the Incisions discharge properly, the Patient may rest satisfied : For this Discharge is purely variolous ; and I have known Instances of Persons inoculated with the Matter from the Incisions, who have had the Small-Pox in consequence of it."

Mr. *Ford*, a Surgeon, near *Totnes*, inoculated himself, his Wife, and his two Children, in *May* 1742, and had so slight an Eruption, that no one would have taken it for the Small-Pox, which made him very uneasy, as
he

he thought he should still be liable to the Infection in the natural Way; but on my viewing the Incisions, and finding them discharge plentifully, I assured him he might be satisfied, for that he was as secure from any further Infection as if he had had a great Number of Pustules. My Prognostic has been fully verified, he having acquainted me, that he has attended more than 200 Persons in Inoculation, besides several in the Natural Way, without receiving any Infection, or having the least Apprehension of it. He acquaints me besides, that all his inoculated Patients went through the Disorder without any dangerous Symptoms. This is one Instance, among many, that may be produced, that the Small-Pox, by Inoculation, even in the slightest Manner, is Security sufficient against any future Infection.

Mr. Gould, a Surgeon of *Southmolton*, says, “ that from the most exact Account he can procure, he finds that 293 have been inoculated in his Neighbourhood, of whom he inoculated 178, who all did well, and of the others only one died. He adds, that in the Spring of the Year 1762, the Small-Pox was so fatal, that 9 died of the first 25 that had
that

that Distemper, which made him afraid at first to inoculate ; but he ventured after some Time, and within six Months inoculated 120, not one of whom had any bad Symptom, tho' the Small-Pox in the Natural Way continued to be very fatal, one out of six having been carried off by it. Among those he inoculated, he says, one Man was turned of sixty, and another more than fifty ; the first of these had a very favourable Sort, and the last, tho' he had been a very hard Drinker, had only three or four Pustules."

Some Years since, when the *Dorsetshire* Militia were quartered in *Exeter*, I mentioned to Mr. *White*, their Surgeon, that as the Small-Pox was then very prevalent, it might be advantageous to inoculate the Common Men. The Colonel, a Gentleman of great Benevolence and Humanity, approving of the Scheme, it was immediately put in Execution, and with what Success appears by the following Letter, sent me lately by Mr. *White* from *Shaftesbury* :

" The Number that I inoculated at *Exeter* amounted to 300 ; one Man, a Grenadier of Captain *Chafin's* Company, lost his Life through the Imprudence of his Nurse, who
gave

gave him (unknown to me) forty Drops of Tinct. Théb. in the Evening, and the same Night a large Quantity of Sheeps Dung boiled in Milk, the Consequence of which was a Delirium, and notwithstanding my utmost Care, he died the next Day, which was the fifth after the Eruption. The Number of the Pustules, which were of a very fine distinct Sort, did not exceed thirty. One *Foot*, whom I inoculated, was previously infected with the Small-Pox, for the Eruption came out three Days after the Operation, and of the worst confluent Kind; he lived till the eleventh Day, and I had some Hopes of him on using the Cortex and Spirit of Vitriol; for the Petechiæ, which were numerous, began to disappear, but the Disease was very heavy; and I had some Reason to think his Attendants gave him Spirituous Liquors.

“ My usual Method of Preparation, as I had no Time previous to the Inoculation, (for the Colonel insisted on my filling the Hospital as soon as empty) was to bleed those that were Plethoric, give them the next Night five Grains of Calomel, and a Purge the Morning following: These were generally given twice before the Eruption.—I will
mention

mention one Case which happened while I was at *Chatham*, where I had the like Success as at *Exeter*, with a greater Number of Patients. A Serjeant had a Bubo, and other Venereal Complaints, for which he took the Sublimate, and Brandy, with the Decoction of Sarsaparilla. In the Midst of his Cure he was taken ill of the Small-Pox, had as fine a distinct Kind as ever I saw, and not above 20 Pustules. I concluded him lost, on a Supposition that the Globules of the Blood were too much divided by the Sublimate for a distinct Sort, but was agreeably deceived by his speedy Recovery."

Mr. *Hodge*, Surgeon, of *Honiton's Clift*, informs me, " That he has inoculated 300, from three Months to fifty Years of Age, and tho' several of them were very unpromising Subjects, of scorbutic, strumous, and leprous Habits, yet, he says not one of them was in any Danger, which he thinks the more extraordinary, as the Small-Pox in the natural Way at the same Time made dreadful Havock, two out of seven, and, in some Families, two out of five, having been carried off by it. Mr. *Hodge* adds, that he generally prepared his Patients by giving them Calomel,

Æthiop. Mineral. Antimony, and Purgatives, and feldom omitted to bleed all above seven Years of Age."

An eminent Phyfician fent me, a few Days fince, the following Account from *Ireland*.

" Although Inoculation has been a very common Practice in *Dublin* for many Years, yet I have no Materials from which to form even a Conjecture of the Numbers that have undergone, or the Succefs that has attended, it. However, as I very rarely hear of its being followed by any ill Event, and as the Vogue of it appears ftill to increafe, I believe it is as little chargeable with difcouraging Confequences here as in other Countries : For, as to what we have been told from the Pulpit, of Mr. *Ranby*, I will only fay, that I am very confident no Man that ever went before him had fuch *good Luck*-in the Buſinefs : I call it good Luck, becauſe Accidents muſt ſometimes happen, which no Skill or Caution could prevent.

" About one hundred and forty have been inoculated under my Direction, of whom one only died ; but the Event was plainly not imputable to Inoculation ; and I muſt trouble you to hear the Story.

" A Girl,

“ A Girl, seven Years old, had such uncommonly irritable Nerves, that her Parents used to call her their Hysteric Child. She was inoculated, after the usual Preparation, in temperate Weather, from a very mild Pock; and continued perfectly well until the eighth Day afterwards. The previous Symptoms then came on regularly, and were unattended with any unusual or alarming Circumstance. The Evening before the Eruption was expected (the tenth from the Inoculation) she was calm and chearful. At this Time she was violently frightened by the sudden and horrible Screams of her Brother, who lay in the next Room, inoculated at the same Time, and of whom she was passionately fond. She fell instantaneously into a Fit of Roaring and Screeching; said they were killing her Brother; soon lost her Senses; and still continued raving of her Brother until her Death, which happened on the fourth Day of the Eruption. The little Boy, who was a Year younger, of the same Make, and, to Appearance, of the same Habit of Body as her's, had the Disorder in the gentlest Manner imaginable.

“ The fittest Period for Inoculation is evidently, I think, from two Years and a half or three Years of Age, to Purberty. I never permitted it to be practised on Infants: For,

1. They usually have the Natural Pock of as benign a Kind as the Artificial.
2. While they are at the Breast, the Soreness of their Mouths (if they are beset with Pustules) is apt to disable them from Sucking.
3. Their frequent Dyfenteric Fluxes make a considerable Objection to the inflicting of the Distemper by Art.
4. From the Beginning of Dentition (which is generally between the fourth and fifth Month) till they have got their first twenty Teeth (which does not usually happen 'till they are two Years and a half or three Years old) every Practitioner knows how very suddenly, and without any previous Notice, they are often knocked down with violent and alarming Symptoms from Teething.
5. Children, during the Period I have been speaking of, are seldom tractable.
6. It is found true, in Fact, that the artificial Infection is much more fatal to Infants than to Children from three Years upwards.

“ With

“ With regard to the Preparation for Inoculation, and the Manner of performing it, the following is the Method that I always use.

“ If the Patient is not in perfect Health, I bring him to it before I permit him to undergo the Operation. If there is any Acrimony in his Juices, it should be corrected by the usual Remedies, particularly Mercurials.

“ I choose to take the Infection from a natural Pock, because the artificial one appears to me to be less communicative of the Disorder, and more apt to disappoint us.

“ The Pus ought to be taken, in my Opinion, from a young Subject, particularly if the Patient be a Child. I have seen Children inoculated from Adults, who had the Disorder in the gentlest Manner, and yet the Pock that ensued was of such a rank Nature, as to give me a Suspicion that the Practice was wrong.

“ Though the variolous Matter preserves its Infection for more than a Year, yet, as all the Humours of the Body, healthy or morbid, grow putrid by being exposed to the Air, I think it obvious that fresh Pus should be preferred.

“ The

“ The Matter inserted should be perfectly pure and ripe. I have seen Surgeons press the Pustule until the Blood flowed ; so that a Sanies was inoculated, instead of Pus. This, I have observed, is more difficult to assimilate, and the Pock that follows is more stubborn than usual.

“ Although I am confident that no other Distemper is communicable with the varicellous one, yet, to content Families, I always take the Matter from a healthy Child, born of healthy Parents.

“ As soon as I have Notice of a mild Pock to take the Infection from, (which may be five or six Days before the perfect Maturation of it) I confine my Patient to his House, to prevent his catching the Disorder in the natural Way ; I oblige him to live temperately on plain, light Food ; and restrain him from all over-heating Exercise. His Body is to be moderately loosened twice or thrice before the Operation is performed, and, on this Occasion, I would prefer gentle Mercurial Purgatives. We used, you know, to observe at St. Thomas's Hospital, (as Dr. Mead did) that all those Patients, who were taken with the
Small-

Small-Pox during, or after a Mercurial Salivation, had the mildest Sort.

“ If a sanguine, rigid Habit of Body, a Disposition in the Patient to Hæmorrhages or Inflammations upon being seized with feverish Complaints, or any other Circumstance indicates Blood-letting, I would choose to have it performed two or three Days before the Inoculation.

“ The Patient should be inoculated in two Places, lest one should fail.

“ I direct that the Incision should be superficial, lest the Pus should be washed out of the Wound; and that the Quantity of Matter inserted should be very small; altho' I must acknowledge, that I have more than once seen a large Quantity of Pus infused into a deep Wound, without the least ill Consequence.

“ After the Operation has been performed, the Patient should be confined to his Chamber; if he's not regular in the Discharges by Stool, his Body should be occasionally opened by an emollient Clyster; his Legs are to be bathed every Night in warm Water; and he is to wear an additional Pair of Worsted Stockings, large enough to draw half way up
the

the Thigh. He should, by all Means, be kept from violent Exercise ; for I never saw an Instance of the Small-Pox appearing after great Fatigue of Body, that was not of a bad Kind. His Allowance of Flesh Meat should be gently lessened a Day or two before the expected previous Fever, and light Puddings, Broth, or Gruel, substituted in the Place of what is cut off.

“ After the Invasion of the previous Symptoms, the Disorder, you know, is to be treated in the same Manner as the Natural one ; but more Purging seems to be required after the Pock is dry, to prevent the Consequence of Boils. ”

The following Account I received from a Person of great Rank and Fortune in this County.

“ A Gentleman engaged in the public Service of his Country, having often lamented that his Attendance thereon was prevented by an Apprehension of the Small-Pox, resolved on Inoculation, though aged, and of a corpulent Habit ; and having happily recovered of that too commonly fatal Distemper, in humble and grateful Acknowledgment of so great a Blessing, caused an Intimation to be
given

given, that he would defray the Expence of all within his Parish who were inclined, and should be deemed fit, to be inoculated; in consequence of which, eighty-six underwent the Operation in the Parish of *King's-Nympton*, every one of whom recovered of the Small-Pox, except one Child, that was seized with a Fever the Day after the Operation was performed. It is remarkable, that among those inoculated Persons there were several aged, and some who were of the most scrofulous Constitutions."

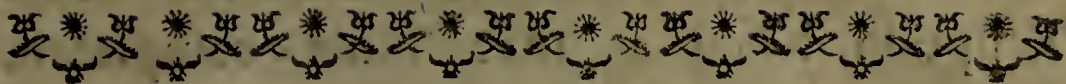
In this City, according to the best Calculations I can make, since the Year 1741 there have been about 700 Persons inoculated, of whom only two died; one of these I have already given an Account of, and the other was not my Patient.

It seems needless to mention any other Instances, as Inoculation is now practised with the greatest Success in almost every Kingdom in *Europe*, and is strongly recommended by the whole College of Physicians in *London*, as appears by the following Judgment, which they ordered to be entered some Time since in their Annals — "*Quoniam Collegio nunciatum fuit, falsos de variolarum insitivarum in*
I *Angliæ*


Angliâ successu, et existimatione apud exteras gentes nuper exiisse rumores, eidem collegio sententiam suam de rebus hisce ad hunc modum declarare placuit, (viz.) Argumenta, quæ contra hanc variolas inferendi consuetudinem in principio afferebantur, experientiam refellisse, eamque hoc tempore majori in honore apud anglos haberi, magisque quam unquam antea inter eos nunc invalescere, atque humano generi valde salutarem esse se existimare.”——“ The College having been
 “ informed, that false Reports concerning
 “ the Success of Inoculation in *England* have
 “ been published in Foreign Countries, think
 “ proper to declare their Sentiments in the
 “ following Manner, viz. THAT THE ARGUMENTS, WHICH IN THE BEGINNING
 “ WERE URGED AGAINST IT, HAD BEEN
 “ REFUTED BY EXPERIENCE; THAT IT
 “ IS NOW HELD IN GREATER ESTEEM BY
 “ THE ENGLISH THAN EVER; THAT THE
 “ PRACTICE OF IT INCREASES GREATLY
 “ AMONG THEM; AND THAT THE COLLEGE THINK IT TO BE HIGHLY SALUTARY TO THE HUMAN RACE.”

Exeter,
May 17, 1765.

John Andrew.



POSTSCRIPT.

 **SHORT** OON after the foregoing Treatise was finished, an unfortunate Event happened at some Distance from *Exeter*, of which it would be unpardonable in me not to give a true Account.

On the 21st of last Month I was desired to attend the Inoculation of two Children, the Operator having never seen any thing of the Practice. One of them had been under my Care, a Fortnight or three Weeks, but the other I never saw till the Time of the Operation.

Being present when they were inoculated, I said I would come and see them during the Eruptive Fever, (as is usual) but, to my great Surprize, my Offer was rejected, and therefore I no longer considered them as my Patients. However, I was called to them the 2^d Day of this Month, (which was the thir-

teenth after the Operation) when I found both ill of the confluent Small-Pox. The Eruption being at that Time completed, it was too late to prescribe any of the Evacu-ations, which are generally ordered on the Seizure of the Small-Pox, if it proves violent.

From the 2d of *June*, I had no particular Account of them, till the 6th, when I visited them, with my Friend and Colleague Dr. *Glass*, which was the only Visit we made to the youngest, * for he died in the Evening of the following Day; but we were desired to attend the eldest again, on the 8th, at which Time there appeared Hopes of his Recovery; and favourable Accounts of him were sent to us, till the 14th, when we were acquainted that he had brought off six Worms the Day before, and that he was in the last Extremity.

As neither Dr. *Glass*, nor myself, ever saw such a malignant Sort of Small-Pox from In-oculation,

* A Sister of this Child was inoculated under my Directions, at the same Time, but in a different Part of the Country, and had the Small-Pox in a very favourable Manner.

oculation, among near a thousand that have been inoculated under the Directions of one, or other, of us, as it resembled exactly the virulent Kind, which has greatly prevailed during the last six Months; and as these Children had been almost surrounded by the Small-Pox, it may not, perhaps, be unjust to suppose, that the Natural Infection had reached them. I wish their afflicted Parents could be of this Opinion, for then they might be satisfied, that the same Fate would probably have attended them, if they had not been inoculated.—On the Supposition, however, that the Deaths of these Children may be imputed to Inoculation, and that both of them ought to be deemed my Patients, (which, for the Reasons already mentioned, I think would be unfair) yet three only have died of about 600 that have been inoculated under my Direction. How disproportionate this to the Loss by the Natural Small-Pox?

It is reckoned by some ingenious Calculators, that one in 12000 dies every Day; and as the Term allowed for Inoculation is reckoned to be twenty one Days, the inoculated Patient's general Chance of dying, during that

that Period, would be nearly as one to 571, abstracted from the particular Hazard attending that Practice, which ought to be admitted, to account for the Deaths of some Persons under Inoculation; and probably Worms might have contributed to the Death of the Child last mentioned, for besides the six brought off the Day before his Decease, he voided several during the Course of his Disorder.

Notwithstanding what is advanced in P. 42, and 43, I beg it may be understood, that I do not intend to recommend the Practice of Inoculating in Towns that are free from the Small-Pox; and in such as are infected, it would be very hazardous; for which Reasons it ought never to be performed, except in remote Places, appropriated to that Purpose.

Whatever Inelegancies, or Inaccuracies may occur in this Treatise, the Reader, it is hoped, will be candid enough to excuse them, especially when he considers, that the Writer had no Leisure to polish, or correct his Style, being only attentive to the Facts, and which he committed to the Press amidst the Multiplicity

tiplicity of indispensable Avocations, without the least Ambition of becoming an Author; his sole Motive being to obviate the Prejudices which have obstructed the Practice of Inoculation, in the City and Neighbourhood of *Exeter*—a Practice which, he is fully convinced, (notwithstanding some fatal Accidents that must necessarily attend it) will be beneficial to Mankind, in Proportion as it is extended.

June 17, 1765.

